

Title (en)

CATALYST CONTAINING IRIIDIUM AND METHOD FOR A GAS-PHASE GUERBET REACTION

Title (de)

IRIDIUMHALTIGER KATALYSATOR UND VERFAHREN FÜR EINE GASPHASEN-GUERBET-REAKTION

Title (fr)

CATALYSEUR CONTENANT DE L'IRIDIUM ET PROCÉDÉ POUR UNE RÉACTION DE GUERBET EN PHASE GAZEUSE

Publication

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Application

**EP 14749771 A 20140804**

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Abstract (en)

[origin: WO2015018793A1] The invention relates to a catalyst and a method for condensing alcohols in the gas phase by means of a Guerbet reaction. The catalyst according to the invention is preferably used in a method for producing butanol by condensing ethanol. The catalyst comprises a carrier material composed of thermally partially or completely decomposed compounds similar to hydrotalcite, preferably hydrotalcite, in contact with iridium and/or ruthenium as a promoter, wherein the content of iridium and/or ruthenium is in the range of 0.05 to 4 wt%, preferably 0.1 to 3.5 wt %, and especially preferably 0.2 to 3.0 wt%, and the average size of the promoter particles is < 100 nm, preferably < 75 nm, further preferably < 50 nm, and especially preferably < 20 nm. The alkali content of the catalysts is very low, i.e., < 1 wt%, preferably < 0.5 wt%. In a preferred embodiment, the method is performed at a temperature in the range of 0 to 450 °C, a pressure in the range of 0.05 to 60 bar, and an alcohol content in the reactant flow in the range of 0.5 to 90 vol%.

IPC 8 full level

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